

Choudhury 1999-0776

IN THE CLAIMS:

1 - 3. (Canceled) .

4. (Currently Amended) A method for processing link state routing control messages by a network node, comprising:

identifying control messages that need to be processed by said node by type, from a set of predetermined types;

storing each of the type-identified control messages, by type, in a respective one of a plurality of message queues;

assigning a weight to each of the respective message queues based on urgency considerations for processing said control message;

developing a sequence of said queues based on said weights, by use of a round robin table with number of appearances of said queues in said table being a function of the weights assigned to said queues, and a number of entries in the round robin table corresponding to a sum of the weights assigned to the message queues;

accessing said queues in accord with said sequence, and processing the control messages queued in the accessed queue for at most a processing time of T seconds, where T is preselected; and

The method according to claim 3, further including positioning the entries in the round robin table so as to minimize a distance between multiple entries corresponding to the same message type queue.

5 - 10. (Canceled) .

11. (Currently Amended) A method for processing link state routing control messages by a node in a network, comprising:

identifying predetermined routing control message types based upon a value in a header of routing control messages received by the node;

identifying predetermined routing control messages generated by the node;

storing each type of identified routing control message in a corresponding one of

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a plurality of message queues;

assigning a weight to each of the message queues;

generating a round robin polling table having a number of entries corresponding to the sum of the weights assigned to the message type queues;

processing the entries in the round robin polling table such that a predetermined amount of processing power is allotted to each of the message queues; and

The method according to claim 9, further including minimizing a distance between entries in the polling table that correspond to the same message queue.

12 - 20. (Canceled) .